A Case of Extra-uterine Gestation; Intra-peritoneal Rupture in Fifth Week; Operation Five Weeks After Rupture: Recovery.*

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Intra-peritoneal rupture of an ectopic gestation sac is so constantly attended with the death of the patient from hæmorrhage that when the accident occurs and the patient does not die, we are apt to be sceptical regarding the character of the rupture unless opportunity is afforded of learning the true condition by abdominal section, as in the case whose history I here relate.

Mrs. E. L., aged 28, entered puberty at the normal age, and had always, previous to the present illness, enjoyed good health; she was married seven years ago and has had four children at the full term after normal labors. The oldest child was 6 years and the youngest 15 months of age at the time the patient came under observation. She nursed all of her children and had weaned the youngest in June, 1890. On July 20th, she menstruated, but in August her catamenia failed to appear. For this reason she considered that she was again pregnant. On September 15th, after some unusual exertion with the sewing-machine, she experienced a pelvic fulness and distress, and felt that she was about to menstruate. At 10 o'clock the following night, while preparing for bed, she was taken with violent pain in the left iliac and hypogastric regions, with retching, vomiting and purging. She was found shortly afterward lying on the floor in a state of collapse and apparently dead. But she soon began to show signs of life, and after being placed in bed stimulants were administered, which so restored her that a physician was not at once called.

During the remainder of the night and the next day she had considerable pain in the pelvic and hypogastric regions, with constant rectal and vesical tenesmus. The lower portion of the abdomen was visibly distended, especially on the left side. The patient continued to grow worse, and on the morning of the 17th, thirty-six hours after the first attack, a physician was called, who diagnosed "malarial fever and gastric disturbance." She remained in bed until the 20th, suffering severe labor-like pains almost constantly, accompanied by chills and fever. On two occasions during the five days from the onset of the stormy symptoms and the latter date, "a mass like a thin piece of meat" (uterine decidua) was expelled from the uterus. From this, together with the pain and hæmorrhage, the patient concluded that she had miscarried and was, therefore,

*Reprinted from the Transactions, Philadelphia Obstetrical Society, February, 1891.

through with her trouble. Accordingly, on the morning of the 21st she arose and went about, resuming her domestic duties. A few hours afterwards she was seized with pain, as at first, and was again lifted into bed. This attack, however, was not so severe as the first one had been.

Dr. B. Trautmann was now called, and after investigation decided that the history and symptoms all pointed to rupture of an extra-uterine gestation sac.

He found the left iliac and lower abdominal regions considerably distended. The patient was extremely blanched and without perceptible radial pulse. He at once advised a consultation and asked the husband to go for me. But as the patient slowly rallied again, his advice was not followed, and consultation was deferred. Two days later she was much improved and blood at this time commenced to flow slightly from the uterus. This continued for a week and appeared to be a normal menstruation, indicating that the embryo was probably dead. The abdomen continued very tender, and she had considerable pelvic pain, with recurring chills and rise of temperature. On October 4th she had another attack of severe pelvic pain attended with slight metrorrhagia. After this, as soon as she could be removed, she was sent to the Hospital of the Philadelphia Polyclinic, where I first saw her on October 13th.

At this time there were extreme pallor of the surface and considerable emaciation. The heart action was very feeble, and there were daily afternoon rigors, followed by slight elevation of temperature.

Physical Signs.—Vaginal touch revealed the uterus displaced to the right and anteriorly by a mass which occupied the left side of the pelvis and the pouch of Douglas. The tumor was quite irregular below, where it appeared to be connected with the broad ligament and the posterior surface of the uterus by a broad, sessile attachment. Its upper portion, as shown by the combined vagino-hypogastric palpation, was rounded and more circumscribed and extended into the left iliac region. The mass was slightly mobile above, but fixed below. There was slight fluctuation in the circumscribed portion, but the lower irregular portion was rather boggy than otherwise, and gave the suggestion of coagulated, semi-organized blood and lymph.

The history and physical signs made it quite clear that a tubal pregnancy had existed, and that rupture into the peritoneal cavity had occurred at the time of the first attack, on the night of September 15th. The strongest point against a diagnosis of intraperitoneal rupture was the fact that the patient was alive; for it is the present well-founded belief that unless prompt surgical measures are taken to ligate the open vessels by abdominal section, the patient almost invariably succumbs to the occult hæmorrhage. The fortunate accident to which this patient probably owed her life will be shown in the specimen.

This case was now in very much the same condition in which a patient is left after the embryo has been killed by electricity. She had a dead product of conception in her abdominal cavity. She was for this reason in far more danger than if the same dead product had been in the uterine cavity, because in the former condition she was helpless, while in the latter the uterus might empty itself spontaneously. I believe that there is not one among us who would be willing to leave a dead product within the uterus indefinitely to nature. We would remove what is now a foreign body, likely to undergo decomposition and destroy the patient from septic absorption, if not from hæmorrhage. But if either were left to nature, it should be the intra-uterine rather than the extra-uterine product. Both, however, should be promptly removed.

Laparotomy was advised, and the operation was performed on October 20th. An incision less than two inches in length was made in the median line of the hypogastrium, and one finger introduced. The tumor was found in the left iliac and pelvic regions, imbedded in a mass of lymph and semi-organized blood. There was also considerable free blood in a state of commencing disorganization, but there was not any odor of decomposition, although the characteristic odor of the placenta was very marked. I began by dissecting the ovum from its loose attachments, and was then able to trace its connection with the Fallopian tube, and through this with the uterus, the latter organ being at first masked beneath a large quantity of blood and lymph. In a very few minutes I was able to deliver this beautiful specimen through the incision. Examination showed it to be the ovum and Fallopian tube, with a healthy ovary hanging from its lower surface. The broad ligament was transfixed and ligated, the mass cut away, and the pedicle dropped. The blood and lymph were then removed from the pelvic cavity by means of the fingers and a small sponge in the grasp of a long forceps, when the incision was closed. Neither irrigation nor drainage was considered necessary.

The patient bore the operation well, and made an uninterrupted recovery, her temperature never reaching 100°. She went home within four weeks and remains well.

Examination of the specimen shows that rupture had taken place along the upper border of the Fallopian tube, the hæmorrhage occurring from this point only, and that the ovum itself did not rupture or become entirely separated from its connection with the tube, and it still remains attached by its lower surface; to this fact may be attributed the non-fatal character of the hæmorrhage. Bleeding occurred from the detached portion of the placental surface; the undetached portion of the ovum then acted as a plug and prevented further hæmorrhage.

The specimen shows the amniotic sac laid open by section. The embryo, which is probably not more than four or five weeks of age, is suspended by its cord in the upper portion of the sac.

A question of the greatest importance relates to the management of these cases at the time that rupture occurs. Would it have been wise to have performed laparotomy in this case, had an opportunity been given, on the night of September 15th, when the patient was in collapse from hæmorrhage? We might ask, "Is it wise, when called to a patient who is bleeding to death, to ligate the vessel from whence the blood is flowing?" There is no doubt that the law of immediate action is the safe one to follow, as a rule, but when the source of the hæmorrhage is in such location as an extra-uterine gestation sac, the law must not be obeyed so implicitly as when the hæmorrhage is taking place from the femoral artery, for instance, for there is always an uncertain quantity existing, as was proved in the case I am reporting, and which might weigh strongly against immediate action. If the patient has rallied, and there is not any evidence of a continuance of hæmorrhage, it might be wise to wait, but at the same time constantly to watch the patient. Operation during the shock, or immediately afterward while the patient is still weak, is more apt to be fatal. But it is very difficult to advise or to lay down an absolute rule in these cases. Each case must be decided on its merits, and he who has had the largest experience should be the safest guide. Could we diagnose such a condition as is exhibited in this specimen, it would be always proper to wait until the patient had recovered from the shock before operating, but this we are unable to do.

Practically, all cases of extra-uterine pregnancy are tubal and rupture into the peritoneal cavity. It is affirmed by Tait that rupture into the broad ligament often occurs ; but for anatomical reasons and from my own experience,I believe this must be rare. It would be fortunate if rupture into the broad ligament always occurred, for it is said the patient is then more likely to recover. This would be especially true if the rupture occurred early in the gestation, as the embryo would then be more likely to die and disappear spontaneously. If the embryo did not die, it might then, according to this view, go on developing within the folds of the broad ligament, and even reach the period of viability or term. The question of differential diagnosis between intra-peritoneal and intra-ligamentous rupture would be one of great value if this theory were true, because then more time might be given to deliberate. The diagnostic points of peritoneal rupture are the profound shock and collapse which result from the great amount of hæmorrhage, with often the death of the patient. If a patient has fully rallied after presenting symptoms of rupture, careful physical examination would possibly serve to differentiate between the two forms. In the case of intra-ligamentous hæmorrhage, the swelling would correspond to the distended broad ligament, and the blood would be confined within the limits of the fascia and surround the rectum, causing stricture of that organ. If, on the other hand, the hæmorrhage was intra-peritoneal, there would be bulging of Douglas' pouch, and the loose blood would be limitless.